

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

Claim 1. (Currently amended) A self-propelled Mini or Micro UAV configured for operating aerodynamic flight at flight speeds in the range between 10 m/s to 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000, and comprising a fore wing and an aft wing in tandem close-coupled arrangement, wherein said aft wing has side panels and control surfaces on at least one of said aft wing and said side panels, and tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, the fore wing and aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement, said Reynolds numbers being based on a characteristic chord length of a main wing of said UAV, said main wing being one of said fore wing and said aft wing.

Claim 2. (Previously presented) The UAV of claim 1, wherein said fore wing has straight trailing edges with negative sweep angle.

Claim 3. (Previously presented) The UAV of claim 2, wherein said fore wing has negative sweep.

Claim 4. (Previously presented) The UAV of claim 1, further comprising a fuselage.

Claim 5. (Previously presented) The UAV of claim 4, wherein said fore wing is mounted on the upper side of said fuselage on at least one pylon.

Claim 6. (Previously presented) The UAV of claim 5, wherein said fore wing is disposed higher than said aft wing at least by the length of an average aft wing chord.

Claim 7. (Previously presented) The UAV of claim 1, wherein said fore wing and said aft wing partially overlap each other in plan view.

Claim 8. (Previously presented) The UAV of claim 1, wherein said tandem arrangement of said fore wing and said aft wing has an overall width W and an overall length L including any control surfaces of said UAV, and the sum of planform wing areas of said tandem arrangement is at least 70% of the product $W \times L$.

Claim 9. (Previously presented) The UAV of claim 1, wherein the fore wing, the aft wing and other elements of said UAV are disposed so as to provide longitudinal aerodynamic stability.

Claim 10. (Previously presented) The UAV of claim 9, wherein said arrangement has positive pitching moment at zero lift.

Claim 11. (Previously presented) The UAV of claim 1, wherein at least one of said aft wing and said fore wing has rounded tips.

Claim 12. (Previously presented) The UAV of claim 1, wherein at least a portion of the trailing edge of said aft wing has negative or positive sweep angle.

Claim 13. (Previously presented) The UAV of claim 1, wherein said aft wing has aspect ratio between 2.5 and 4.

Claim 14. (Previously presented) The UAV of claim 1, wherein said fore wing has aspect ratio between 3 and 5.

Claim 15. (Previously presented) The UAV of claim 1, wherein planform areas of the aft wing and the fore wing are in ratio between 2:1 and 1:1.

Claim 16. (Previously presented) The UAV of claim 1, wherein said control surfaces comprise rudder control surfaces on said side panels.

Claim 17. (Previously presented) The UAV of claim 1, wherein said fore wing has side panels.

Claim 18. (Previously presented) The UAV of claim 17, wherein said fore wing has rudder control surfaces on its side panels.

Claim 19. (Previously presented) The UAV of claim 1, wherein said fore wing has control surfaces.

Claim 20. (Previously presented) The UAV of claim 1, wherein said self-propelled UAV has a tractor propeller mounted in front of said tandem arrangement.

Claim 21. (Previously presented) The UAV of claim 1, wherein at least one of said fore wing and said aft wing has non-zero dihedral angle.

Claim 22. (Previously presented) The UAV of claim 21, wherein the dihedral angles of the fore wing and of the aft wing are such that the vertical distance between wing tips of said fore wing and said aft wing is greater than the vertical distance between their respective wing roots.

Claim 23. (Previously presented) The UAV of claim 1, wherein said aft wing has twist.

Claim 24. (Previously presented) The UAV of claim 1, wherein said fore wing has twist.

Claim 25. (Previously presented) The UAV of claim 1, wherein said aft wing has positive angle of incidence.

Claim 26. (Previously presented) The UAV of claim 1, wherein said aft wing has airfoil sections with positive zero lift pitching moment.

Claim 27. (Previously presented) The UAV of claim 1, wherein the fore wing, the aft wing and other elements of said UAV are disposed so as to provide longitudinal aerodynamic instability.

Claim 28. (Previously presented) The UAV of claim 27, wherein said self-propelled UAV has a pushing propeller mounted after said tandem arrangement.

Claim 29. (Previously presented) The UAV of claim 27 having negative pitching moment at zero-lift.

Claim 30. (Currently amended) A self-propelled Mini or Micro UAV configured for operating aerodynamic flight at flight speeds in the range between 10 m/s to 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000 and comprising a fore wing and an aft wing in tandem close-coupled arrangement, wherein said aft wing has side panels and control surfaces on at least one of said aft wing and said side panels, and tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, the fore wing and aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement, wherein said Reynolds numbers are based on a characteristic chord length of a main wing of said UAV, said main wing being one of said fore wing and said aft wing, and wherein a planform area of the aft wing is not less than a planform area of the fore wing

Claim 31. (Previously presented) The UAV according to claim 30, wherein planform areas of the aft wing and the fore wing are in ratio between 2:1 and 1:1.

Claim 32. (Previously presented) The UAV according to Claim 30, wherein said tandem arrangement of said fore wing and said aft wing has an overall width W and an overall length L including any control surfaces of said UAV, and the sum of planform wing areas of said tandem arrangement is at least 70% of the product $W \times L$.

Claim 33 (Previously presented) The UAV according to claim 30, wherein said UAV is a micro-UAV and has at least one of a maximum longitudinal length and a maximum wingspan not greater than about 15cm.

Claim 34. (Previously presented) The UAV according to claim 30, wherein said UAV is a mini-UAV and has at least one of a maximum longitudinal length and a maximum wingspan between about 20cm and about 1.2m.

Claim 35. (Previously presented) The UAV according to claim 1, wherein said UAV is a micro-UAV and has at least one of a maximum longitudinal length and a maximum wingspan not greater than about 15cm.

Claim 36. (Previously presented) The UAV according to claim 1, wherein said UAV is a mini-UAV and has at least one of a maximum longitudinal length and a maximum wingspan between about 20cm and about 1.2m.

Claim 37. (Canceled)

Claim 38. (New) The UAV of claim 1, wherein said characteristic chord is an average chord taken between a root and a tip of said main wing.

Claim 39. (New) The UAV of claim 1, wherein said main wing is said aft wing.

Claim 40. (New) The UAV of claim 30, wherein said characteristic chord is an average chord taken between a root and a tip of said main wing.

Claim 41. (New) The UAV of claim 30, wherein said main wing is said aft wing.